CLAIMS

- A flax seed having a linolenic acid content of greater than 65% of the total fatty acid content of said seed.
- 2. The flax seed of claim 1 wherein the linolenic acid content is greater than 70%.
 - 3. A flax seed that is the product of a plant line designated M5791.
- 4. A flax plant which produces seeds having a linolenic acid content of greater than 65% of the total fatty acid content of said seed.
- 5. The flax plant of claim 4 wherein the linolenic acid content is greater than 70%.
 - 6. A flax plant designated M5791.
- 7. Progeny of a flax plant designated M5791, wherein said progeny produce seeds having a linolenic acid content of greater than 65% of the total fatty acid content of said seed.
- 8. The progeny according to claim 7 wherein the linolenic acid content is greater than 70%.
 - 9. Seeds from the flax plants of claims 4, 5, 6, 7 or 8.
 - 10. Oil manufactured from the seeds of claims 1, 2, 3 or 9.
 - 11. A product containing flax seed of claims 1, 2, 3 or 8.
 - 12. The product of claim 11 wherein the flax seed is milled.
 - 13. A method of producing a flax plant line comprising the steps of:
- (a) crossing a plant of a flax plant line designated M5791, or progeny thereof, with an agronomically elite flax plant; and

- (b) selecting at least one decendant of said cross, said decendant producing seeds having a linolenic acid content of greater than 65% relative to the total fatty acid content of said seed.
- 14. A product comprising meal remaining from oil extraction of flax seeds having a linolenic acid content of greater than 65%.